REMARKS

Regarding the Status of the Claims:

Claims 1 – 21 are pending.

Claim 1 is currently amended.

No claims have been withdrawn from consideration.

Regarding the Claim Amendments presented in this reply:

The amendments to claim 1 do not add new matter.

The first "wherein clause" added to claim 1 finds support in original claim 1, and in claims 9 – 14 as previously presented.

The second "wherein clause" added to claim 1 finds support in paragraph [0019] of the published application, which reads,

> The focusing optical elements should be arranged, taking account of their respective focal length, at an optimized distance from the respective reflecting surface so that even slight changes in distance can be reflected in measured light intensities at the optical detector, that vary significantly.

The second "wherein clause" also finds support in paragraph [0025] of the published application, which reads,

> If at least one further optical fiber that can direct light onto a further optical detector from the reflecting surface is arranged in the vicinity of the designated one optical fiber, the light intensity detectable with the aid of this optical detector is increased in conjunction with a varying distance, as soon as the reflecting surface is arranged outside the focal point plane of the reflecting optical element, that is to say has been moved. A simultaneous reduction in the light intensity that is directed onto the corresponding optical detector with the aid of the other optical fiber via the optical coupler/fiber brancher takes place.

Regarding the Claim Rejections:

The Office action rejects:

I. claims 1 – 4, 6, 8, 17, and 18 under 35 U.S.C §102(b) over US 5,543,919 to Mumola (hereinafter, "Mumola");

II. claims 9 – 14 under 35 U.S.C §103(a) over Mumola and US 5,146,515 to Chao et al. (hereinafter, "Chao"); and

III. claims 5, 7, 15 – 16, and 21 under 35 U.S.C §103(a) over Chao.

Regarding Rejection I:

Applicants respectfully submit that the rejection of claims 1 – 4, 6, 8, 17, and 18 under 35 U.S.C §102(b) over Mumola should be withdrawn. This rejection is moot in light of the amendment to claim 1.

For the sake of completeness, Applicants also respectfully submit that the disclosure of Mumola is limited to the use of a white light source, while the present invention can utilize light sources like LED or Laserdiodes emitting monochromatic radiation. Thus, Mumola would require filters and means for detection of a reflectance pattern with the use of a detection in spatial resolution. Such additional equipment, effort, and expense is not required to practice the present invention.

Regarding Rejection II:

Applicants respectfully submit that the rejection of claims 9 – 14 under 35 U.S.C §103(a) over Mumola and Chao should be withdrawn. This rejection is moot in light of the amendment to claim 1.

Regarding Rejection III:

Applicants respectfully submit that the rejection of claims 5, 7, 15 – 16, and 21 under 35 U.S.C §103(a) over Chao should be withdrawn. This rejection is moot in light of the amendment to claim 1.

Regarding Official Notice:

The Office action asserts it was well known in the art that:

1. "using a coupler reduces the amount of fiber needed to take measurements, therefore reducing cost of the apparatus and size;"[1]

2. "having the fiber at different angle [*sic*] can reduce the amount of noise for the optical source from entering the optical fiber, therefore increasing the sensitivity of the measurement;"[2]

3. "a grating can separate light into different components, therefore allowing the apparatus to selectively block certain components from reaching the detector;"[3]

4. "using a cylindrical lens increases the area at which can be [*sic*] inspected at one time, therefore decreasing the amount of time needed to scan a surface;"[4]

5. "light traveling through the lens will converge to a spot on the axis, at a certain distance behind the lens giving a focal length, therefore increasing or decreasing the optical power;"[5]

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[1] Page 6, lines 6 – 7 of the Office action mailed July 14, 2008.
[2] Page 6, lines 12 – 14 of the Office action mailed July 14, 2008.
[3] Page 6, lines 18 – 20 of the Office action mailed July 14, 2008.
[4] Page 7, lines 7 – 8 of the Office action mailed July 14, 2008.
[5] Page 7, lines 13 – 15 of the Office action mailed July 14, 2008.

6. "LED's and diodes have longer illumination life, therefore decreasing the amount of maintenance needed;"[6]

7. "a pellicle … is a known reflecting surface increasing the reliability of the measured light;"[7] and

8. "an optical microphone produces less noise and therefore is more accurate."[8]

Applicants do not acknowledge that any of these features were well known in the art at the time the claimed invention was made. Applicants request that these Official Notice statements be withdrawn. Alternatively, in accordance with the harshly-worded standard set forth in the case of *In re Chevenard*, 139 F.2d 711, 713, 60 USPQ 239, 241 (CCPA 1943), Applicants respectfully "demand [that] the examiner … produce authority" for the Official Notice Statements. According to the case of *In re Zurko*, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001), "[The examiner] must point to some concrete evidence in the record in support of these findings."
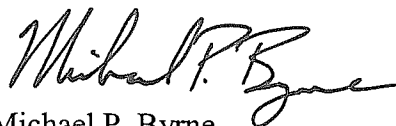
<u>In Conclusion</u>:

The present application is in condition for allowance. Applicants request favorable action in this matter. In order to facilitate the resolution of any issues or questions presented by this paper, the Examiner is welcome to contact the undersigned by phone to further the discussion.

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[6] Page 7, lines 10 – 11 of the Office action mailed July 14, 2008.
[7] Page 8, lines 4 – 6 of the Office action mailed July 14, 2008.
[8] Page 8, lines 10 – 11 of the Office action mailed July 14, 2008.